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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,610	11/03/2000	Kazi Sarwar Abedin	199313US2X	4010

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EXAMINER

NGUYEN, TU T

ART UNIT PAPER NUMBER

2877

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,610

Applicant(s)

ABEDIN, KAZI SARWAR

Examiner

Tu T Nguyen

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,12,13,15,16,21-24,26,27,34,35,37,38,43-46,48,50 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,12,13,21,22,45,46,48,50 and 51 is/are rejected.
- 7) ☒ Claim(s) 15,16,23,24,26,27,34,35,37,38,43 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Serial Number: 09/704,610
Filing Date: 11/03/00

Paper No: 6

Detailed Office Action

Election/Restriction

Applicant's election with traverse of species IV corresponding to Fig 6, claims 1-2,4-5,12-13,15-16,21-24,26-27,34-35,37-38,43-46,48,50-51 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that examining the entire application would not place a serious burden on the Examiner. This is not found persuasive because the species have different arrangements and they require different search and consideration.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21,22, lines 2-3, the phrase “whereby light output from the second terminal of the optical distributor is increase” is not clear. Does Applicant mean increasing “the intensity of the light output from the second terminal”?

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2,4-5,12-13,21-22,45-46,48,50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arditty et al (5,056,919) in view of Blake et al (5,377,283).

With respect to claims 1-2,45-46,48,50-51, Arditty discloses a device for measuring a phase shift. The device comprising: a light source S (fig 8), an optical distributor M (fig 8), an optical modulation means (fig 8), means for outputting the return beam M (fig 8), a detector D (fig 8).

Arditty does not disclose means for relating an intensity of the detected light to an optical modulation frequency. Blake disclose a system which relates the intensity of the detector 14 (fig 2) with the optical modulation 20 (fig 2). It would have been obvious to modify Arditty's system with Blake to calculate the dispersion of an optical component.

With respect to claims 4-5, Arditty does not disclose a wavelength-tunable light beam. However, the claimed wavelength-tunable light beam would have been known in the art. It would have been obvious to modify Arditty's light source with a known wavelength-tunable light beam source to select the wavelength of output beam easier.

With respect to claims 12-13, Blake does not disclose a measurement object located on part of the optical path. However, it would have been obvious to substitute the coil 10 (fig 6) with a measurement object to measure the dispersion of the test object.

With respect to claims 21-22, the claimed 90-degree Faraday rotator would have been known. It would have been obvious to modify Arditty's system with the known 90-degree Faraday to distinguish the modulated and the un-modulated lights.

Allowable Subject Matter

Claims 15-16,23-24,26-27,34-35,37-38,43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts of record does not disclose an optical reflection means or a pair of optical modulators having mutually opposed forward modulation directions as claimed in combination with all the limitations in the base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T Nguyen whose telephone number is (703) 306-9185. The examiner can normally be reached on M-T 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G Font can be reached on (703) 308-4881. The fax phone numbers for the organization

where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Tu T. Nguyen
Primary Examiner
Group Art Unit 2877

5/5/03